

IN THE CLAIMS:

The following is a complete list of the claims. This listing replaces all earlier versions and listings of the claims.

Claim 1 (currently amended): A data communication system comprising:

- a source node; and
- one or more destination nodes,

wherein said source node is adapted (a) to set a segment size in accordance with one or more reception capabilities obtained from said one or more destination nodes in order to divide object data into one or more segments, (b) to divide the object data into one or more segments in accordance with the segment size, and (c) to transfer data in each segment from said source node to said one or more destination nodes via a logical connection,

wherein the reception capability includes a maximum payload size of an asynchronous packet being received by the respective destination node.

Claim 2 (previously presented): A data communication system according to claim 1, wherein said source node is adapted to transfer data continuously in each segment to said one or more destination nodes via the logical connection.

Claims 3 - 7 (canceled)

Claim 8 (previously presented): A data communication system according to claim 1, wherein each said destination node includes a receiving buffer, and wherein said source node is adapted to set the segment size in accordance with a size of said receiving buffer in each destination node.

Claim 9 (currently amended): A data communication system according to claim 1, ~~wherein each said destination node is adapted to receive a maximum payload packet size, and~~ wherein said source node is adapted to set the segment size in accordance with the maximum payload size of each destination node ~~a packet which each said destination node is adapted to receive.~~

Claim 10 (previously presented): A data communication system according to claim 1, wherein said source node is adapted to set the segment size in accordance with the lowest reception capability.

Claim 11 (previously presented): A data communication system according to claim 1, wherein the segment size of each segment is variable.

Claims 12-19 (canceled)

Claim 20 (previously presented): A data communication system according to claim 1, wherein said data communication system is a serial bus system.

Claim 21 (previously presented): A data communication system according to claim 1, wherein said data communication system conforms to IEEE 1394-1995 standard.

Claim 22 (previously presented): A data communication system according to claim 1, wherein the object data includes image data.

Claim 23 (canceled)

Claim 24 (currently amended): A data communication method of transferring object data from a source node to one or more destination nodes via a logical connection, said method comprising:

a setting step, of setting a segment size in accordance with one or more reception capabilities obtained from the one or more destination nodes in order to divide the object data into one or more segments;

a dividing step, of dividing the object data into one or more segments in accordance with the segment size; and

a transfer step, of transferring data in each segment from the source node to the one or more destination nodes via the logical connection,

wherein the reception capability includes a maximum payload size of an asynchronous packet being received by the respective destination node.

Claims 25 - 27 (canceled)

Claim 28 (currently amended): A data communication apparatus
comprising:

a control unit adapted to set a segment size in accordance with one or more reception capabilities obtained from one or more destination nodes in order to divide object data into one or more segments, and to divide the object data into one or more segments in accordance with the segment size; and

a ~~digital interface~~ data communication unit, coupled to said control unit, adapted to transfer data in each segment from said apparatus to the one or more destination nodes via a logical connection,

wherein the reception capability includes a maximum payload size of any asynchronous packet being received by the respective destination node.

Claims 29 - 33 (canceled)

Claim 34 (previously presented): A data communication method according to claim 24, wherein said transfer step includes continuously transferring data in each segment from the source node to the one or more destination nodes via the logical connection.

Claim 35 (previously presented): A data communication method according to claim 24, wherein said setting step includes setting the segment size in accordance with a size of a receiving buffer in each destination node.

Claim 36 (currently presented): A data communication method according to claim 24, wherein said setting step includes setting the segment size in accordance with ~~[[a]]~~ the maximum payload size of each destination node ~~a packet receivable by each destination node.~~

Claim 37 (previously presented): A data communication method according to claim 24, wherein said setting step includes setting the segment size in accordance with the lowest reception capability.

Claim 38 (previously presented): A data communication method according to claim 24, wherein the segment size of each segment is variable.

Claim 39 (previously presented): A data communication method according to claim 24, wherein said data communication method is applicable to a serial bus system.

Claim 40 (previously presented): A data communication method according to claim 24, wherein said data communication method is applicable to IEEE 1394-1995 standard.

Claim 41 (previously presented): A data communication method according to claim 24, wherein the object data includes image data.

Claim 42 (currently amended): A data communication apparatus according to claim 28, wherein said ~~digital interface~~ data communication unit is adapted to continuously transfer data in each segment to the one or more destination nodes via the logical connection.

Claim 43 (previously presented): A data communication apparatus according to claim 28, wherein each said destination node includes a receiving buffer and wherein said control unit is adapted to set the segment size in accordance with a size of said receiving buffer in each destination node.

Claim 44 (currently amended): A data communication apparatus according to claim 28, ~~wherein each said destination node is adapted to receive a maximum payload packet size, and~~ wherein said control unit is adapted to set the segment size in accordance with the maximum payload size of each destination node ~~a packet which each said destination node is adapted to receive.~~

Claim 45 (previously presented): A data communication apparatus according to claim 28, wherein said control unit is adapted to set the segment size in accordance with the lowest reception capability.

Claim 46 (previously presented): A data communication apparatus according to claim 28, wherein the segment size of each segment is variable.

Claim 47 (previously presented): A data communication apparatus according to claim 28, wherein said apparatus and the one or more destination nodes are in a serial bus system.

Claim 48 (previously presented): A data communication apparatus according to claim 28, wherein said apparatus and the one or more destination nodes are in a system that conforms to IEEE 1394-1995 standard.

Claim 49 (previously presented): A data communication apparatus according to claim 28, wherein the object data includes image data.